bio-techne
TOCRIS

Print Date: Feb 25th 2025

Certificate of Analysis

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Product Name: **CLP 257** **Catalog No.: 5242** **Batch No.: 1**

CAS Number: 1181081-71-9

IUPAC Name: (5*Z*)-5-[(4-Fluoro-2-hydroxyphenyl)methylene]-2-(tetrahydro-1-(2*H*)-pyridazinyl)-4(5*H*)-thiazolone

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{14}H_{14}FN_3O_2S$

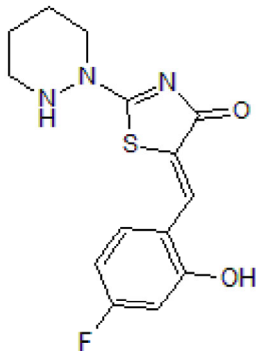
Batch Molecular Weight: 307.34

Physical Appearance: Yellow solid

Solubility: DMSO to 100 mM

Storage: Store at +4°C

Batch Molecular Structure:



2. ANALYTICAL DATA

TLC: R_f = 0.44 (Dichloromethane:Methanol:Aqueous ammonia. [9:1:0.1)

HPLC: Shows 98.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	54.71	4.59	13.67
Found	54.74	4.57	13.65

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

CLP 257 is a selective KCC2 K^+-Cl^- cotransporter activator (EC_{50} = 616 nM). Exhibits selectivity for KCC2 over other KCC family members, NKCC1 and $GABA_A$ receptors, as well as 55 other receptors. Enhances Cl^- transport and increases KCC2 plasma membrane expression in spinal slices with reduced KCC2 function. Alleviates hypersensitivity in rats with peripheral nerve injury.

Physical and Chemical Properties:

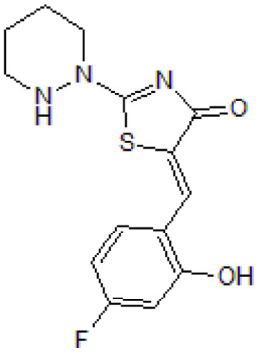
Batch Molecular Formula: $C_{14}H_{14}FN_3O_2S$

Batch Molecular Weight: 307.34

Physical Appearance: Yellow solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at +4°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Gagnon *et al* (2013) Chloride extrusion enhancers as novel therapeutics for neurological diseases. Nat.Med. ***19*** 1524. PMID: 24097188.